

Abstract

Efficacy of the P-POSSUM Scoring system in prediction of post operative mortality and morbidity in patients undergoing emergency laparotomy in our institute

Background and aims: The POSSUM scoring system and its modification P-POSSUM (Portsmouth-POSSUM) scoring has been studied in various clinical settings, with varied results. Due to the simplicity of the scoring system it can be used in a variety of clinical scenarios and over varying geographical settings. Due to its wide application the efficacy of the scoring must be verified in individual settings . We wish to assess the efficacy of the scoring system in cases of emergency laparotomies in a south Indian clinical scenario.

Methods: A prospective study was undertaken with a sample size of 50 . All cases taken for emergency laparotomies were included in the study. 12 physiological characteristics and 6 intra operative characteristics were taken and according to the equation the predicted rates of mortality and morbidity were

predicted. This was compared with the observed rates of mortality and morbidity. With this, the efficacy of the scoring system was assessed.

Results: Of the 50 cases included 5 expired(10%) and 29 (58%) experienced some form of morbidity. The P-POSSUM score was found to be an accurate predictor of mortality ($\chi^2=1.174$, d.f=8) with a p-value of 0.997. the P-POSSUM score was found to be an accurate predictor of morbidity ($\chi^2=14.949$, d.f=8) with a p-value of 0.0603, as the p-value was >0.05 .

Conclusion:The P-POSSUM scoring system produced accurate results even in the setting of emergency laparotomies in a south Indian setting. It has proved to be a useful tool for not only predicting mortality and morbidity results but also can be used as a tool for surgical audit to compare technique and surgeon competence.

Keywords: POSSUM , P-POSSUM, mortality , morbidity.

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